

# SMARA UPDATE



The Quarterly Newsletter of the Department of Conservation - Office of Mine Reclamation

## OMR'S ABANDONED MINE LAND UNIT SEALS OFF ANOTHER HAZARDOUS MINE SHAFT

### A Day in the Life of the AMLU

The picturesque Merced River is located in the southern Mother Lode and shows the signs of man's frantic search for gold. One such sign is the Rogge Mine near the historic town of Mariposa. This mine site is littered with abandoned equipment and mine workings including hydraulic pits, moderately deep shafts, decaying machinery and hazardous terrain, all within sight of a popu-



(Photo 1) **Big Hole in the Ground:** Jonathan Mistchenko, AMLU staff, stands next to the deep shaft slated to be closed with polyurethane foam. Note the Merced River in the background (*photo by Doug Craig*).

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lar campground. Both the mine site and the campground are on federal land managed by the Folsom Field Office of the Bureau of Land Management (BLM). An abandoned mine site this close to a campground poses a serious physical safety hazard to campers, curious children, and unwary hikers. This prompted the BLM to decide to mitigate some of the hazards at the

Rogge Mine site.

At the same time, the Department of Conservation's (DOC) Abandoned Mine Lands Unit (AMLU) had been aggressively reaching out to other agencies to help locate, assess and remediate abandoned mine sites throughout the state that pose safety hazards to the public. In this case the

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(Photo 2) **Staircase to Heaven.** Tim Carroll (left foreground), Ed Wilson, and David Beauchamp (right) descend the handcrafted staircase to the shaft (*photo by Blake Rushworth*).

outreach paid off: the BLM contracted with the AMLU to mitigate three hazardous shafts near the campground.

Even the media got involved. *California Connected*, a weekly PBS television series that features interesting facts and stories about California, was interested in producing a story on the dangers at abandoned mine sites. The story encompassed interviews with public officials, survivors of a fatal abandoned mine accident, examples of dangerous mine features, and some processes involved in mitigating hazards at mine sites.

It was mid-March in Mariposa County, the weather was nice, and the early snowmelt was

filling the streams and roaring down the Merced River through Yosemite Valley and



(Photo 3) **Setting the Stage.** Director Darryl Young discusses abandoned mine hazards with California Connected reporter Stephanie O'Neill (*photo by Blake Rushworth*).

the Sierra foothills. One could not ask for better conditions for a mine closure. The work crew consisted of AMLU staff, Blake Rushworth of DOC's Office of Technology Services, Ed Winchester of Frontier Environmental Solutions (a DOC subcontractor) and Tim Carroll (a BLM geologist).

We rendezvoused at the campsite nearest the mine to discuss the details of the closure. The first consideration was the safety of everyone involved, including the camera crew and reporter from *California Connected*. The mine shafts were located in an area of steep terrain and lots of poison oak (Photo 1). This made it more difficult to haul the 25 boxes, weighing 66 pounds each, of polyurethane foam and expensive camera equip-



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ment to the shafts.

The solution was to construct steps into the steep slope, and install rope handrails to help the crews up and down the steps (Photo 2). Digging and building the steps involved careful shovel work, placement of native rocks, and use of short lengths of wood to stabilize each step. Near the steps, handrails were made by first pounding large tree stakes into the ground. Lengths of rope were then threaded through the stakes and tied off at each end to form the completed handrails.

After a few hours of laborious effort, the AMLU crew had created an easy walkway that resembled a well-planned stairway from any theme park in America. The day ended with planning assignments for the next day's activities in conjunction with the *California Connected* television crew and DOC's Director, Darryl Young (Photo 3).

The next morning, the AMLU staff, Ed and Tim arrived at the mine site and parked within 200 feet of the work area to unload equipment and foam. The foam was staged near the largest and deepest shaft. The other two shafts would be backfilled with native soil and rock found on site.

### Making the False Bottom



(Photo 4) **Lights, camera – action!** Ed Winchester of Frontier Environmental Solutions demonstrates the strength of polyurethane foam to the *California Connected* film crew (photo by Blake Rushworth).

Once the camera crew and Darryl Young arrived, they carefully traversed the slope of the hill with help from the newly built staircase. That's when the work really began. Under the direction of Ed Winchester, a large tarp was laid out near the shaft (Photo 4). This provided a clean area for Ed to create a false bottom made of polyurethane foam (PUF). The first step was to lay out four long ropes, with small wooden stakes tied on the ends, to form an "X" pattern on the tarp. The ropes make it easier to lower the false bottom into position inside the shaft. Then rough measurements of the upper portion of the shaft's diameter were made and Ed started to

mix the foam.

The foam comes packaged in heavy-duty plastic with a rubber strip separating two chemical components; one component is foam, the other is a catalyst that causes the foam to expand. Ed carefully removed the separator strip between the two components and kneaded the bag like a large ball of dough. As the foam started to react and fill up the bag, a corner was cut off and the foam was poured over the rope on the tarp to approximate the size of the shaft's diameter. The foam expands to about 30 times its original volume and hardens quickly. This process was repeated with two more bags

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(Photo 5) **Getting to the Bottom of Things.** Ed Winchester and the AMLU staff prepare to lower the newly formed false bottom into the shaft (photo by Blake Rushworth).

of foam until the false bottom was formed.

### Completing the Plug

Once the foam had hardened completely, four people each grabbed a length of the exposed rope and carefully lowered the foam disc into the shaft (Photo 5). At the same time, Ed lowered himself into the shaft and helped to position the false bottom against the walls. When Ed was satisfied with the position of the false bottom, he placed empty plastic bags into the cracks between the edges of the false bottom and the walls of the shaft. This filled in the gaps and allowed more foam to be applied without it falling down the shaft. Once all the gaps

were filled, Ed started pouring the mixed foam onto the false bottom to form the plug. When complete, this plug would be about nine feet in diameter and eight feet thick. That's a lot of foam!

Meanwhile, the rest of the crew was busy digging, picking, and backfilling the other two hazardous mine shafts. These shafts were deep enough to pose a significant fall hazard. Partial backfilling of these shafts would mitigate the hazards and allow a person to easily climb out. It took most of the day to loosen enough soil and rock to fill in both shafts.

As the work continued, the television crew panned the

camera to scope the entire project. They interviewed Darryl Young, Director of the Department of Conservation, and Doug Craig, Manager of the Abandoned Mine Lands Unit. After the camera crew got enough footage of the PUF process and the backfilling of the other shafts, they headed out to another dangerous mine site. This site was located on private property and contained an extremely dangerous "glory hole." The AMLU crew stayed onsite to finish the remediation of the three shafts.

A remediation project of this magnitude usually takes all day, between mixing the foam, cleanup and backfilling. When the camera crew arrived back on site, it got some good shots of the reporter and Darryl Young standing (and even jumping) on the hardened PUF plug. The foam is so strong that it would take 64,000 pounds to move it and 44,000 pounds of constant pressure to keep it moving.

It was now time to apply the final touches on the PUF closure. Because PUF degrades when exposed to sunlight, a two-foot dirt cap was added to protect the plug (Photo 6). With picks and shovels flying, everyone helped break up some of the native soil and pile it onto the foam plug. Within 30 minutes, the shaft was gone and the site was safe.

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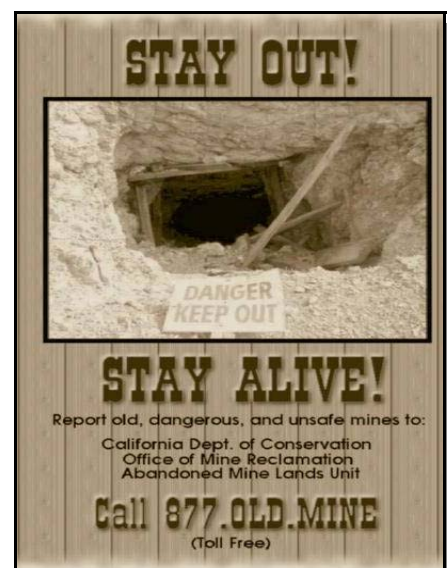


(Photo 6) **Disappearing Act:** Blake Rushworth (far left), David Beauchamp, Tim Carroll, and Jonathan Mistchenko put the finishing touches on the foam closure (*photo courtesy of Ed Winchester*).

The only thing left to do was clean up the site. The AMLU crew dismantled the makeshift stairs and rope handrails, and loaded up the vehicles with the tools and supplies. The crew made a final sweep of the area, looked back over the closed shafts to survey a full day's work and to take some pictures. As the sun was setting behind the hills, the crew stopped to wash up in the cool Merced River and reflect on a job well done.

If you have any information about an abandoned mine hazard, please report it by calling **1-877-OLD-MINE**. For more information about television coverage of the Rogge Mine site remediation, please visit the *California Connected* website at: [www.californiaconnected.org/](http://www.californiaconnected.org/)

*By Dave Beauchamp,  
and Sarah Reeves,  
AMLU Staff*



The following article was published on page B-1 in the August 16, 2004 edition of the *Bakersfield Californian* newspaper. It is reprinted here with permission .....editor.

## Planners Get Tough on Mining Companies

By Gretchen Wenner

The days of wimpy hand slaps are over for local surface mining companies that haven't crossed every "t." Two recent fines make it clear: in June, [Kern] county planning commissioners hit one company with a \$2,000 fine, in July they slapped another with \$2,500.

Before the recent actions, the largest such fine was \$300. The get-tough stance of county planners was sparked by state regulators. A few months back, state folks sent a letter noting more than half of Kern's surface mining companies — 43 of an estimated 70 operators — were breaking rules. Such firms typically gather sand and gravel used to make roads and buildings.

The violations, which range from filing late paperwork to scraping dirt outside allowable boundaries, don't pose a public health risk, according to county and state officials. But not enforcing the rules means some operators run roughshod over the land, and state regulators want

that to stop.

The county's action is part of a larger crackdown across California, according to Bill Armstrong, head of the state Office of Mine Reclamation, which oversees surface mining.

"It's very definitely a state-wide effort," Armstrong said. "This is no reflection on the mines in Kern County."

Kern's ratio of noncompliant mines is on par with the rest of the state, he said. Basically, Armstrong said, the state is beefing up efforts to enforce existing laws.

That means pressure on 130 or so local agencies, including Kern County, that permit and inspect California mines.

The goal of the crackdown is twofold. First, to make sure companies have a plan to return land to usable condition when mining is done. Second, to guarantee there's enough money left to cover those costs. Operators must update plans for both categories every year.

When companies walk away from mines, the public ends up footing the bill, Armstrong said. Right now, there are about 47,000 abandoned mines in California. The state's surface mining



Jim Ellis, Kern County's Planning Department Operations Division Chief (*photo courtesy of Kern County Planning Department*).

industry, which includes cement, crushed stone, boron and other non-fuel operations, totals \$3.5 billion annually, the reclamation office said. Of that, sand and gravel operations bring in about \$1.16 billion a year.

Jim Ellis of the county Planning Department said the state's letter, which arrived in March, required nearly two months' work for the department.

"We had to do a lot of research to find out what was wrong with all of these mines," Ellis said.

Now, the 43 firms are ranked by priority in four tiers. Planners are currently going after 16 companies in the two highest-priority tiers.

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This year the department will pursue penalties for six to eight surface mining companies, Ellis said, about double the enforcement in past years.

In June, Asphalt Construction Co. became the first local group squeezed by the new policy when planning commissioners OK'd a \$2,000 fine — reduced from a recommended \$5,000 hit. Over the course of several years, Asphalt Construction failed to respond to numerous violation notices from the county, according to the department.

Clay Hemperly, the family-owned firm's vice president, said he has no hard feelings about the penalty. "I was slow in getting the mine corrected," Hemperly said.

But since June's scrutiny, Hemperly said he and his 50



Oblique aerial view of the world renowned Borax Pit and plant, eastern Kern County. View is to the northwest. Since the first permanent settlers arrived in the 1840s, the abundant mineral resources of Kern County have contributed much to the economic development of California. Encompassing 8,171 square miles, Kern County is the third largest county in California and has a current population of more than 630,000 residents (*photo courtesy of U.S. Borax, circa 1993*).



Scott Denney, Associate Planner with Kern County's Planning Department (*photo courtesy of Kern County Planning Department*).

or so workers have made major headway taking care of years-old problems. "We've made a big amount of progress on the Mojave mine," he said. "Our inspector was quite surprised."

The second company facing enforcement action, Edison Sand Co., met its Monday deadline to pay a \$2,500 fee, according to the planning department.

Edison's operators haven't yet submitted acceptable cleanup plans or proven they have funds in place to pay those

costs, according to the county. The firm would have had to stop operations if the payment was missed.

Planning Commissioner Kay Pitts said word of the county's get-tough attitude is hopefully spreading through the surface mining community, encouraging operators to tighten up. The county is recognizing that "we have a greater responsibility to the environment, citizens and the state to enforce" existing rules, she said.

## New SMARA Legislation

Governor Schwarzenegger recently signed two bills amending the Surface Mining and Reclamation Act (SMARA). Senator Byron Sher authored the first piece of legislation, Senate Bill (SB) 218. This bill was follow-up legislation to SB 649 (Kuehl: Chapter 794, Statutes of 2003). SB-649 placed the same prohibition of buying mined materials from non-SMARA complaint mines by local agencies that had previously been adopted by state agencies (Public Contract Code, Section 10295.5).

### Senate Bill 218

SB-218 was originally introduced in 2003 and would have eliminated authority to conduct regional mineral land classification studies unless requested and paid for under the petition process. This bill was amended at the beginning of 2004 to allow local agencies, upon request, to receive a copy of the "AB-3098" list of operators in compliance with SMARA. This list enables local agencies as well as state agencies to know from which mine operators they may purchase mined materials.

The Department creates the AB-3098 list and updates it on

a monthly basis. The most recent list may be viewed at the department's website at:

[http://www.consrv.ca.gov/OMR/ab\\_3098\\_list/index.htm](http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm)

This bill was enrolled and signed by the Governor on July 14, 2004. It will become effective on January 1, 2005.

### Assembly Bill 1984

The second piece of legislation is Assembly Bill (AB) 1984, which was authored by Assembly member Lois Wolk. This bill is a follow-up to AB-297 (Thompson; Chapter 869, Statutes of 1999). AB-297 allowed Yolo County to substitute the Cache Creek Resource Management Plan (RMP), combined with site-specific mining plans, for a reclamation plan until December 31, 2003. AB-297 never took effect because Yolo County never adopted a mining ordinance that addressed in-stream mining approved by the State Mining & Geology Board (SMGB). AB-1984 reinserted the same language with a sunset date of December 31, 2008.

As with AB-297, provisions of AB-1984 will only take effect if Yolo County adopts a mining ordinance, which is then approved by the SMGB. When Yolo County meets the preconditions, the Yolo RMP can be substituted for site-specific reclamation plans. This bill was enrolled and signed by

the Governor on July 16, 2004. The earliest this bill can become effective is January 1, 2005.

*Clayton Haas,  
Legislative Analyst  
Department of Conservation's  
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Environmental Relations*



## Spotlight: The California Abandoned Mine Lands Forum

The seventh meeting of the California Abandoned Mine Lands Forum was held on August 11, 2004. Presentations at the meeting included *“Yuba River Watershed - Mining, Assessment, and Restoration Potential”* by Gant Massey, Vice President of Operations with Bitterroot Restoration, Inc., and an update on a passive treatment project at the Golinsky Mine in Shasta County by Jim Gusek, Senior Project Manager with Golder Associates.

With funding from the California Bay-Delta Authority, the Department of Conservation hosts quarterly meetings of the California Abandoned Mine Lands Forum at its Sacramento Headquarters. Participants include representatives from federal, state, local agencies, the mining industry, environmental consultants, and private citizens. The next meeting is scheduled for November 17, 2004.

For more information about the California AML Forum, please visit its web page at: [http://www.consrv.ca.gov/omr/abandoned\\_mine\\_land/amlu\\_forum.htm](http://www.consrv.ca.gov/omr/abandoned_mine_land/amlu_forum.htm).



**Passive Treatment Technology.** Jim Gusek explains the process for determining the most effective mixture of sulfate-reducing agents for reducing acidity and removing metal contaminants at the Golinsky Mine (*photo by Sam Hayashi*).

The following Office of Mine Reclamation 'Notice' was sent to all the Lead Agencies to announce new SMARA Financial Assurance regulation changes....*editor*.



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DEPARTMENT OF CONSERVATION  
STATE OF CALIFORNIA

NOTICE

August 25, 2004

TO: ALL LEAD AGENCIES

SUBJECT: MODIFICATION OR RELEASE OF FINANCIAL  
ASSURANCES; NEWLY ADOPTED REGULATION

The purpose of this letter is to alert you to an addition to the California Code of Regulations (CCR), section 3805.5, and to ask your cooperation in implementing this change. Section 3805.5 was added to the CCR by the State Mining and Geology Board and became effective in May 2004. The new provision affects lead agencies procedures for releasing or otherwise modifying a financial assurance mechanism covering active mines within their jurisdiction. You may review the text of this new addition by visiting our website at the link below:

<http://www.consrv.ca.gov/OMR/smara/index.htm>

The new provision clarifies and provides more detail to what is required in section 2773.1 of the Public Resources Code relating to financial assurances for active mining operations. Lead agencies continue to have primary responsibility for approving a modification or release of a financial assurance. Any change to a financial assurance, whether a modification or a release, requires substantiation based on an inspection of the mining operation. This section further requires that the Department of Conservation (Department) give concurrence with the action of the lead agency for any modification or release to take place. In order for the Department to give this concurrence the following must be provided by the lead agency:

- An inspection report;
- A revised financial assurance cost estimate;
- Complete documentation supporting the revised cost estimate;
- A written statement that the mined land has either been fully reclaimed or remains subject to a financial assurance as modified.

The Department will have 45 days in which to review this documentation. The Department will either concur with the lead agency or will point out aspects of the mining operation that remain to be reclaimed or are not in compliance with the Surface Mining and Reclamation Act (SMARA) of 1975, or will list what it believes to be inadequacies in the calculations on



All Lead Agencies  
August 25, 2004  
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which the financial assurance determinations have been made. If the mining operation is found to be out of compliance with SMARA corrective actions must be completed before the Department will provide concurrence. Unless the lead agency receives concurrence from the Department that there are no outstanding reclamation liabilities, a financial assurance may not be released. The Department will make every effort to expeditiously address each notification from a lead agency regarding the release or modification of a financial assurance.

The Department's Office of Mine Reclamation will provide technical assistance to lead agencies in implementing this new section. The first level of assistance is available on our website, incorporating answers to technical questions you may already have. Furthermore, this website will help you develop and provide suggested forms and checklists for use by lead agencies to make your job easier. Please refer to our website at the link provided below for a copy of this Notice and check back periodically for updates to questions and answers to technical problems.

[http://www.consrv.ca.gov/OMR/official\\_notices/index.htm](http://www.consrv.ca.gov/OMR/official_notices/index.htm)

Please share this notice, or the information contained in it, with others that you believe may be impacted by this change and contact this office at (916) 323-9198 if you have any questions or concerns regarding a specific financial assurance situation.

## MEETING PROFESSIONALS HONOR KIT GONZALES

Kit Gonzales, Executive Assistant to the State Mining and Geology Board, was honored with the President's Award of Merit for her contributions and leadership to the National Society of Government Meeting Professionals (SGMP) at a recent national conference in Nashville, Tennessee. Kit co-chaired the Society's National Membership Retention Committee this year in addition to serving as newsletter editor for her local chapter. Kit was also honored as "Meeting Planner of the Year" in the Society's Sacramento Chapter. She served on several local chapter committees and has been active in promoting the organization and recruiting new members.

Established in 1981, the SGMP is a nonprofit professional organization for those involved in planning government meetings, and of individuals who supply services to government planners. SGMP is the only national organization in the United States dedicated exclusively to improving the knowledge and expertise of individuals who plan and execute federal, state, or local government meetings. The organization, with 3,600 members in 30



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Our web site address is <http://www.consrv.ca.gov/omr>. The purpose of this publication is to impart the latest reclamation tips, as well as changes in SMARA-related legislation or interpretation of existing statutes by court decisions.

Interim Director: Debbie Sareeram  
Assistant Director for OMR: William Armstrong  
Newsletter Editor: Don Dupras

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**Left:** Inset wording for the SGMP Award.

**Below:** Inset wording for the Sacramento Chapter "Meeting Planner of the Year" Award.



chapters nationwide, provides education and training, and connects those who plan meetings with representatives of the hospitality industry. Represented in SGMP's membership are employees of federal, state, county and city government, as well as associations of governmental employees and government agencies. In addition, industry suppliers, comprised of those representing hotels, convention and visitor bureaus, audio visual companies, airlines, and rental car companies provide services to the vast meetings, trainings, seminars and conferences conducted by and for the government every day. There are three California Chapters; Sacramento, San Francisco, and San Diego.



The SGMP National Educational Conference will be held in Sacramento in May 2005. To learn more about SGMP, contact Kit at the Board office. She can be reached at 916/322-1082, or by e-mail at: [kit.gonzales@conservation.ca.gov](mailto:kit.gonzales@conservation.ca.gov). Or take a look at the SGMP national website at: [www.sgmp.org](http://www.sgmp.org).